

REMARKS

Applicants respectfully request reconsideration of the present application in view of the foregoing amendments and in view of the reasons that follow.

Status of Claims:

No claims are currently being canceled.

Claims 1, 2, 18 and 19 are currently being amended.

Claims 20 and 21 are currently being added.

This amendment and reply adds and amends claims in this application. A detailed listing of all claims that are, or were, in the application, irrespective of whether the claims remain under examination in the application, is presented, with an appropriate defined status identifier.

After adding and amending the claims as set forth above, claims 1-3 and 5-21 are now pending in this application.

Indication of Allowable Subject Matter:

Applicants appreciate the indication of allowable subject matter made in the Office Action with respect to claims 2, 5 and 19. By way of this amendment and reply, “objected to” claims 2 and 19 have been amended to place those claims in independent form to include the features of base claim 1 (as amended to address the indefiniteness rejection of claim 1, as discussed below) and any intervening claims. Thus, presently pending independent claims 2 and 19, as well as dependent claim 5 that depends from claim 2, are now believed to be in allowable form.

Claim Rejections – Written Description:

In the Office Action, claims 1-3 and 5-19 were rejected under 35 U.S.C. § 112, 1st paragraph, as failing to comply with the written description requirement, for the reasons set forth on pages 2 and 3 of the Office Action. Due to the amendments made to independent claim 1 so that it now recites that the controlling unit is configured to control the signal line to be in an OPEN state when the time hands are in the non-hand-driven state, except when a pulse is output from the amplifying unit during which the controlling unit controls the signal line to be in a HIGH or a LOW state, this rejection has been overcome. Support for the above features recited in claim 1 may be found in Figure 5 of the drawings, signal AA and BB, as

well as in the description of that figure in the specification. Note that the dashed lines for signals AA and BB correspond to times when those signals are in an OPEN state, and the non-dashed lines for signals AA and BB correspond to times when those signals are in the “H” state, whereby the “H” state of the signals AA and BB occurs when the signal S10 (the driving pulse) is in an Active Low “L” state.

Claim Rejections – Indefiniteness:

In the Office Action, claims 1-3 and 5-19 were rejected under 35 U.S.C. § 112, 2nd paragraph, as being indefinite, for the reasons set forth on pages 3 and 4 of the Office Action. Due to the amendments made to claim 1, as described above in the “Claim Rejections – Written Description” section of these Remarks, this rejection has been overcome. Please note that the word “open” corresponds to a ‘high impedance’ state that is neither a HIGH state (e.g., logic level “1”) nor a LOW state (e.g., logic level “0”), as that word is normally interpreted in circuit design. Figure 5 clearly shows that signals AA and BB can be in a “H” state, a “L” state, or in an OPEN state (dotted lines) that does not correspond to either the “H” or the “L” state, whereby the OPEN state occurs when the timepiece is in the Non-Hand-Driven state.

Accordingly, presently pending independent claim 1, as well as its dependent claims, fully complies with 35 U.S.C. § 112, 2nd paragraph.

Specification Objection:

In the Office Action, the specification was objected, because it refers to claim numbers. The specification has been amended to delete any references to claim numbers in the non-claims sections of the specification.

Claim Rejections – Prior Art:

In the Office Action, claims 1, 3 and 6-18 were rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent No. 4,404,510 to Nakajima. This rejection is traversed with respect to the presently pending claims under rejection, for at least the reasons given below.

Presently pending independent claim 1 now recites, among other things:

wherein the controlling unit is configured to control the signal line to be in an OPEN state when the time hands are in the non-hand-driven state, except when a pulse is output from the amplifying unit during which the controlling unit controls the signal line to be in a HIGH or a LOW state.

Figure 4 of Nakajima shows various signals $\phi 1$ to $\phi 19$, which have either a High State or a Low State. However, an OPEN state during when time hands of a time piece are in a hand-driven state time piece is not disclosed or suggested in this figure of Nakajima. Further, column 2, line 40 to column 3, line 18 does not describe an OPEN state for any of the signals mentioned in this portion of Nakajima, and column 5, lines 57-68 of Nakajima also does not describe an OPEN state for any of the signals mentioned in this portion of Nakajima.

Accordingly, presently pending independent claim 1 patentably distinguishes over Nakajima.

Still further, with respect to dependent claim 3, that claim recites that the predetermined pulse period of the chopper-amplifying unit is set further to a value that corresponds to a power source voltage. In its rejection of claim 3 as made in the Office Action dated January 8, 2008 (no detailed rejections of claim 3 are made in any of the later Office Actions), that Office Action asserted that Figure 3 of Nakajima shows a chopper-amplifying unit 24 that has a predetermined pulse period that is set to value that corresponds to a power source voltage V_{DD} . Applicants respectfully disagree. Namely, column 3, lines 30-51 of Nakajima describes that the reference number 24 corresponds to a driving circuit, whereby the driving circuit does indeed connected to a plus terminal V_{DD} of an electrical supply source. However, as is clear from Figures 3 and 4, the output signals $\phi 12$ and $\phi 13$ of the driving circuit have periods that are not described as being related to the voltage level V_{DD} of the electrical supply source.

Thus, dependent claim 3 is patentable over the cited art of record for these additional reasons, beyond the reasons given above for its base claim. The other dependent claims under rejection are patentable for the specific features recited in those claims, beyond the reasons given above for their base claim.

New Claims:

New claim 20 has been added to recite features seen best in Figure 14 of the drawings (see OR gate 1205), whereby such features are not disclosed or suggested by Nakajima. New claim 21 has been added to recite features described on page 18, lines 15-16 of the specification, whereby such features are not disclosed or suggested by Nakajima.

Conclusion:

Since all of the issues raised in the Office Action have been addressed in this Amendment and Reply, Applicants believe that the present application is now in condition for allowance, and an early indication of allowance is respectfully requested.

The Commissioner is hereby authorized to charge any additional fees which may be required regarding this application under 37 C.F.R. §§ 1.16-1.17, or credit any overpayment, to Deposit Account No. 19-0741. Should no proper payment be enclosed herewith, as by a check being in the wrong amount, unsigned, post-dated, otherwise improper or informal or even entirely missing or a credit card payment form being unsigned, providing incorrect information resulting in a rejected credit card transaction, or even entirely missing, the Commissioner is authorized to charge the unpaid amount to Deposit Account No. 19-0741. If any extensions of time are needed for timely acceptance of papers submitted herewith, Applicants hereby petition for such extension under 37 C.F.R. §1.136 and authorize payment of any such extensions fees to Deposit Account No. 19-0741.

Respectfully submitted,

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